

Women physicians at Baylor University Medical Center

CARA EAST, MD, AND DEBBIE BRIDGES, MD



Cara East, MD



Debbie Bridges, MD

Human kind might be divided into three groups—men, women, and women physicians.
—SIR WILLIAM OSLER

HISTORY OF WOMEN IN HEALING

The early Greeks invoked both gods and goddesses in their healing rituals. Demeter was the caregiver of women and children; Persephone could cure illnesses of teeth; Athena cured blindness; Medea and Circe knew poisons and their antidotes; and Isis, the imported goddess of the Egyptians portrayed as a black raven, was believed to be the greatest healer of all. Even the Hippocratic Oath begins, "I swear by Apollo the physician [a god], by Asclepius [a god], by Hygeia [goddess of prevention, sanitation, and nutrition] and Panacea [goddess of cure], and by all the gods and goddesses making them my witnesses, that I will fulfill according to my ability and judgment this oath and covenant."

Early healers in Greece were as likely to be women as men, and Greek women healers were keepers of the snakes. To this day, the snake-entwined staff represents medicine.

In later Greek times, women were increasingly restricted from the practice of healing. One of the better-known women Greek physicians was Agnodice. She was trained by the master physician Herophilus and was very capable. However, she had to disguise herself as a man to perform her profession in the third century BC, when women were barred from practicing medicine in Greece. Legend says that when she was forced to stand trial for practicing medicine, women patients ran to her support and threatened divorce and withholding of marital enjoyments if she were not allowed to continue her practice. The women prevailed, and Agnodice subsequently had a long career.

In the Roman era, women from aristocratic families practiced a form of domestic medicine, often prescribing medicine and potions for their families and domestic workers. Galen collected what he felt were the most efficacious prescriptions. His works include prescriptions by women matriarchs: Origenia for diarrhea, Eugerasia for nephritis, and Antiochis for chest pain and

gout. He even mentioned a female army surgeon by the name of Margareta.

In the Dark Ages in Europe, the teachings of the Greeks and the Romans were lost. During the 11th century, Arabs translated the works of Galen, Aristotle, and Hippocrates into Arabic, and the works were then reintroduced into Europe by Jews who could read both Arabic and Latin. Christians subsequently translated the Latin texts into local languages, and thereby lost medical knowledge was regained.

In the year 1000, Europe's most important institution for medical teaching was in Salerno, Italy. There, the most distinguished teacher was a woman named Trotula, who wrote a treatise on gynecology and obstetrics that would be copied for hundreds of years. She was renowned as a skilled diagnostician and discussed assessments of pulse and urine. She was the first to describe the dermatologic manifestations of syphilis, she gave opiates for pain, and she wrote directly on the need for hygiene. She taught that surgery was to be conducted with extreme attention to avoid any contamination of the wound.

The church in the Middle Ages encouraged a life of virginity and service to mitigate the original sin of Eve. Thus, many women entered convents to work in healing. During this time, Hildegard (1098–1179) was the most renowned abbess. Her abbey published a major work, *Causae et Curae*, which is attributed to Hildegard, although it was likely compiled by the many women who worked at the abbey. The treatise included a 4-humor theory of health and disease, different from that of the Greeks, and the earliest factual description of female orgasm. Use of 485 plants in healing was described, although the dosages recommended were near-homeopathic. She taught diabetic patients to avoid sweets and nuts. While the teachings also included magic, Hildegard was a scientist, compiling all that was known and believed at that time about healing treatments. This book enjoyed a wide and prolonged circulation.

In the Middle Ages, there was little sanitation, and the bubonic plague spread easily after a dramatic beginning in October 1347 when 12 ships sailed by dying men from the Crimea limped into the port of Messina. Sanitation and prevention practices as taught by the Greeks and attributed to the goddess

From the Division of Cardiology (East), Department of Internal Medicine (Bridges), Baylor University Medical Center, Dallas, Texas.

Corresponding author: Cara East, MD, 3600 Gaston Avenue, Suite 851, Dallas, Texas 75246 (e-mail: CaraEastDeMarco@aol.com).

Hygeia had been largely forgotten. Fully one third to one half of Europe's population died, and occasionally entire villages were wiped out. While 3 forms of illness were caused by the *Yersinia pestis* bacillus (bubonic, pneumonic, and septic), those with the pneumonic and septic forms generally died within 3 days. For reasons that remain unclear, women were up to 7 times more likely than men to survive the plague.

At that time, women healers predominantly tended pregnant women and ill children, functioning as herbalists and passing on their knowledge through apprenticeships. These wise women were sought out in crisis situations and thus helped with the plague, as they had knowledge of various plants for pain and skin comfort. Women healers were also less likely to leave their homes for the country to avoid exposure to the plague and thus became the main caregivers in the cities during the decades of the Black Death. Such women were also reported to know plants that could induce uterine contractions or cause and correct various poisonings. Thus, these women were both revered and feared.

The plague also fostered the rise of a middle class, as there were fewer workers overall and thus workers with skills were able to demand better working conditions and incomes. Guilds were formed, which would result in the modern professions. Healing was often subdivided by the various guilds. For example, executioners would set bones, barbers would bleed and give enemas, and women would practice midwifery. Unfortunately, women also began to be excluded from all teaching institutions, and some women were excommunicated by the church for practicing healing without a license. The guilds did not grant licenses to women because of their lack of formal education.

A famous woman healer at the end of the 14th century was Jacoba Felicie. She was repeatedly fined for practicing medicine in Paris, at that time a city of 200,000 people with only 10 licensed physicians. At her trial, women patients called her a wise and practiced physician who cured them when others could not. She specifically spoke of the need to have more women physicians. "It is better and more seemly that a wise woman learned in the art should visit a sick woman and inquire into the secrets of her nature and her hidden parts, than that a man should do so, for whom it is not lawful to see and seek out the aforesaid parts, nor to feel with his hands the breasts, belly, and reveal the secrets of her infirmity to a man, on account of the honour of the female sex and of the shame which she would feel." It is likely that the fact that she was a Jew may have also played a role in her censure.

The Middle Ages also had a dark side for women healers, as the stage was set for the witch hunts of the 1500 and 1600s. The church took the position that "if a woman dare to cure without having studied, she is a witch and must die." Because the church billed the family for the "cleansing" or inherited all the witch's possessions if she had no family, many women tried as witches were educated women, healers, landowners, or widows with no living family. The Catholic Church acknowledged burning 30,000 witches over 150 years of the Inquisition, the vast majority being women. Germany and England had the greatest number of witch trials. The German inquisitors even built ovens to handle the mass murders, reminiscent of future "cleansings." While some women were acknowledged to be able healers, it was reasoned that the healing must have come from the devil because women were not allowed access to medical education.

The witch hunts finally died down in the 1700s, when the church was separated from government. In England, the last witch was killed in 1684; in America, 1692; and in Germany, 1775. Women were, however, not immediately reinstated in the healing professions. As science replaced religion in the healing professions, medicine dissociated itself from religion and magic and began its golden era. Women, though, were still excluded from formal education in the healing professions.

Throughout this time, women continued to play a role in healing, albeit not an open role. The countess of Chinchon, wife of the Spanish viceroy to Peru, was cured of malaria by the bark of a tree provided by a local woman healer. Dr. Withering reported on the use of foxglove (*digitalis*) for failing hearts after his fiancée persuaded him to visit a wise woman herbalist. Edward Jenner reported his method of vaccination for smallpox in 1789, after reading a report by Lady Mary Montagu. Eighty years earlier, she had reported observing Turkish women applying cowpox from the udders of cows to skin scratches on their children and then covering the cowpox with a nut shell to protect them from future infections. Thus, the true origin of vaccination likely arose within the Arabic healing teachings. Dr. Jenner confirmed the value of the protection and was able, as a man, to introduce the method to the Royal College of Physicians in England and then to the world.

Also in the 1700s, Dr. Barry, a surgeon who practiced her entire life in the British navy, was discovered to be a woman only upon her death. Dr. Barry had been orphaned as a teenager and subsequently raised by an elderly grandmother who feared she would not live long enough to protect the female child. At that time, girls fared especially poorly in orphanages. The child loved science, and so the grandmother dressed the child in boy's clothes so "he" could attend schools. Dr. Barry worked hard and was accepted into medical school. Only when a woman came to dress the body after her death was Dr. Barry discovered to be female. The presence of abdominal striae was also noted, indicating that Dr. Barry had even given birth. How she kept her identity completely secret for her entire life is not known.

HISTORY OF WOMEN PHYSICIANS IN THE USA

Women rose as healers in America in the late 1900s, when medicine again became a domestic issue. At that time, surgery and allopathic medicine in the USA were crude and often dangerous. Illness was seen as a malevolent entity that must be cut, bled, defecated, or vomited out. This occasionally led to deaths. The "angel in the house" was a Victorian ideal of womanhood that assumed that a woman's place was in the home, which was where the respectable healing therapies were applied.

The "cult of domesticity" provided respect and responsibility for the role of women in the home. The *Water Cure Journal* reached 10,000 households and included many articles by Mary Gorie Nichols. Topics included cooking, treatments for childhood illnesses, the regular use of bathing, and sexuality. Women were encouraged to lose the tight corsets and extensive petticoats. "We can expect but small achievements from women as long as it is the labor of their lives to carry about their clothes."

The entry of women into medical schools in the USA finally began in the mid 1800s. Harriott Hunt had practiced for 12 years as a naturalist physician after having apprenticed with a husband-



Figure 1. Dr. Elizabeth Blackwell. Photo courtesy of the Schlesinger Library, Radcliffe Institute, Harvard University.

and-wife team. She applied to Harvard to improve her knowledge and was initially accepted. The senior class of male students, though, drew up a petition protesting her admittance, claiming that the presence of women “is calculated to destroy our respect for the modesty and delicacy of her sex.” Harvard trustees then passed a resolution prohibiting the admission of women, which was enforced until 1946. Harriott Hunt subsequently received an honorary degree from the Female College of Pennsylvania in 1853, and on the 50th anniversary of her practice, her work was celebrated by 1500 friends.

Instead, Elizabeth Blackwell (1821–1910) became the first woman to graduate from a medical school in the USA (*Figure 1*). Her application to medical school was rejected by schools in Boston, New York, and Philadelphia, but she was accepted by Geneva Medical College in upstate New York. Unfortunately, her acceptance was a fluke, as the male students thought it was a joke and were quite surprised when a woman appeared for class on the first day. After Dr. Blackwell graduated first in her class in 1849, the school closed its doors to further women candidates. And although she had completed her medical degree in the USA, she had to travel to Europe to find a residency program that would accept her.

When Ann Preston applied to 4 medical schools after serving as an apprentice to a Quaker physician for 2 years in 1847, her application was rejected by all the schools. In 1850, she established the Women’s Medical College of Pennsylvania, with the help of a group of male Quaker physicians frustrated by their inability to train appropriate women healers. By 1879, approximately 300 women had graduated from US medical schools, and by 1899, women represented 6% of the national physician population.

Marie Zakrzewska (1829–1902), called Zak, also established a hospital. Elizabeth Blackwell ensured her admission to the Cleveland Medical College, with a scholarship provided by Harriott Hunt. Zak then attempted to start a medical practice in New York City, but her request for space was repeatedly rejected as building owners thought she would degrade the value of their

space. Zak then established the New York Infirmary for Women and Children together with Dr. Elizabeth Blackwell. Her journals provide insight into the hard work of physicians at that time. She would rise at 5:00 AM and go to the market at 5:30 AM to purchase groceries and hospital supplies. She then started hospital rounds at 7:00 AM. After rounds, treatments, and consultations, the students and Zak would meet at 9:00 PM each night to cut, sterilize, and fold surgical towels while reciting their lessons. Zak founded a second hospital, the New England Hospital for Women and Children, in 1861. At the height of an epidemic of childbed fever in Boston, only one patient in Zak’s hospital died while 500 women died at Boston’s Lying-In Hospital.

In 1865, women in Boston and New York raised \$50,000 to endow scholarships to include women at leading medical schools, allowing coeducational training. It was rejected by all schools to which it was offered, including Harvard, so it was finally given to Elizabeth Blackwell’s hospital.

Johns Hopkins Medical School became the first to admit women for the coeducational study of medicine in the USA. This was due to the insistence of its founding benefactors, Mary Elizabeth Garrett and M. Carey Thomas. Heiress to the Baltimore and Ohio Railroad and activist in the women’s suffrage movement, Ms. Garrett and her organization were able initially to raise \$100,000 to establish a medical school at Johns Hopkins. To receive funds from this committee, Johns Hopkins had to agree to several stipulations, including admission of women on equal terms with men. When the school’s opening was delayed due to lack of funding, Ms. Garrett offered another \$306,977. Her generosity, though, was seen as a kind of “coercive philanthropy.” By the time Johns Hopkins Medical School opened in 1893, most other medical schools had adopted a similar policy of equal admission policies for men and women. By 1897, women were graduating with honors in most of the medical schools, and in a survey in 1900, 90% of those trained were still practicing.

Women as healers suffered a setback again when the Flexner Report was implemented. Released in 1910, Abraham Flexner moved medicine forward by fighting against medical practices that were unproven. Flexner visited 155 medical colleges in the USA to ascertain if a sound medical curriculum, as expounded by the American Medical Association’s Council on Medical Education in 1905, was being followed. Only Johns Hopkins was given unconditional approval. In 1907, there were 160 medical colleges, which dropped to 100 by 1914. All but one of the women’s medical colleges closed. This resulted in a significant drop in the women in medical schools to 3%. The percentage would not increase again until the second half of the 20th century (*Figure 2*).

HISTORY OF EARLY WOMEN PHYSICIANS AT BAYLOR

Some of us have seen the Pioneer days of the woman physician and have had the opportunity of watching her carve for herself a well-earned niche in the gallery of the respected members of the profession.

—J. H. BLACK IN MEMORIAM OF
FLORENCE WIDNEY AUSTIN, MD, 1948

There are several noteworthy women in the early history of Baylor University Medical Center (BUMC). One such woman was Dr. Hallie Earle (1880–1963), the first female physician to receive a medical degree from Baylor University College of Medicine in 1907. She graduated from Baylor University in 1901,

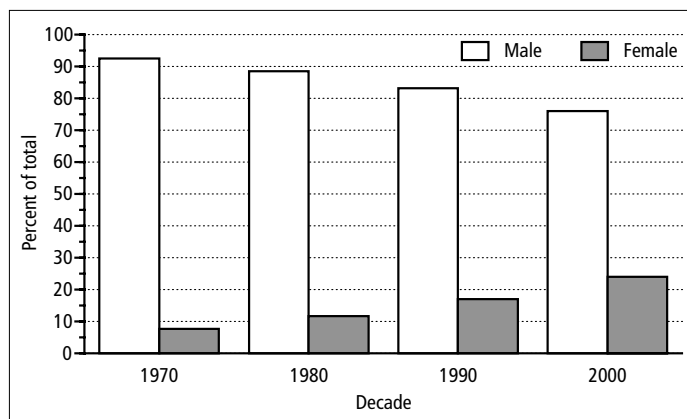


Figure 2. US physicians by gender, 1970–2000. Data from American Medical Association, *Physician Characteristics and Distribution in the US, 2003–2004 Edition*.

one of 7 women in her class of 17. She then obtained a master of science degree in 1902 at Baylor, where she was honored by having her master's thesis placed in the cornerstone of Baylor's new Carroll Science building. She taught school in Gainesville for several years before deciding to go to medical school. Hallie Earle graduated from Baylor University College of Medicine with the highest grade-point average in her class. She chose to study obstetrics and gynecology and interned at Bellevue Hospital in New York. She did postgraduate work in Chicago, New Orleans, and New York and then returned to practice at the Torbett Sanitarium in Marlin, Texas. She later open a private practice in Waco, from which she retired >30 years later in 1948. In retirement, she remained busy, maintaining daily weather observation records that had been collected in previous years by her father. In 1960, the US Weather Bureau awarded her the John Campanius Holm Award.

The first woman physician to establish a medical practice in Dallas was Dr. May Agnes Hopkins (1883–1972) (Figure 3). Dr. Hopkins graduated from the University of Texas Medical School



Figure 3. Dr. May Agnes Hopkins.

in 1911, the only woman in her class. She opened her practice in pediatrics in 1912 but then traveled to France as a Red Cross volunteer in World War I. There, she treated nearly 1000 soldiers a day during the battle of Chateau-Thierry. After the war, she remained in France to care for children. On her return to Dallas, her many accomplishments included maintaining a thriving pediatric endocrinology practice, teaching at Baylor University College of Medicine, and helping to organize the Children's Clinic at Baylor Hospital. She also examined children in juvenile court and lectured on social and child welfare. In 1956, the *Dallas Times Herald* featured "busy" Dr. Hopkins.

Dr. Hopkins attributed her many accomplishments to her experience during the war. "Dallas seemed a little tame after that, and I don't like to have time on my hands," she said. "I couldn't have dreamed in my wildest dreams how wonderful Dallas has



Figure 4. Photograph and model of hands of Dr. Ruth Jackson. Photo courtesy of Dr. Adrian Flatt.

been to me and to all women physicians. But now I know the doors are open. Many hospitals and schools now want the woman physician. There are more and more opportunities for us." Dr. Percy Luecke, former chief of pediatrics at BUMC, recalled that Dr. Hopkins used to make house calls with a revolver hidden under the front seat of her large Buick.

Another influential BUMC woman was Dr. Ruth Jackson (1902–1994) (Figure 4). Although small in stature, standing at only 4'10", her accomplishments were large. She completed her training in orthopaedic surgery at the University of Iowa, where she worked with polio patients under Dr. Arthur Steindler. Dr. Jackson then started private practice in Dallas in 1932 and joined the medical staff at Baylor University Hospital in 1939. She was one of the founders of the Texas Orthopaedic Association in 1936. In 1933, the American Board of Orthopaedic Surgery was founded. Initially, all practicing orthopaedic physicians were allowed to join except Dr. Jackson. However, after passing her orthopaedic board exam in 1937, she became the first woman certified by the board and admitted to the American Academy of Orthopaedic Surgeons.

Dr. Jackson's other career highlights include her book, *The Cervical Syndrome*, which she wrote based on her experience treating >1500 neck injuries. She also recruited Dr. Margaret Watkins as the first orthopaedic resident at Baylor; Dr. Watkins later joined Dr. Jackson in practice. Dr. Jackson was chief of the orthopaedic service at Parkland and established the orthopaedic residency there as well. In 1983, 43 female orthopaedic surgeons founded the Ruth Jackson Orthopaedic Society as a support and networking organization. Today, the society has >400 female and male members and has established a mentoring program for women medical students interested in orthopaedic surgery. Dr.

Table 1. Initial women physicians at Baylor University Medical Center by department, division, or specialty*

Department, division	First	Second	Third
Anesthesiology	Elsie Smith, 1956	Oneita Hedgecock, 1961	Shirley Moore, 1968
Anesthesiology (modern)	Catalina Garcia, 1972	Joann Travis, 1978	Linda Bussey, 1985
Emergency medicine	—	—	—
Family practice	Catherine Bennett, 1957	Ann West, 1957	Diana Carol Lyle, 1969
Family practice (modern)	Michelle Reynolds, 1988	Suzanne Yeagley, 1993	Dana Bleakney, 2002
Internal medicine	Sydney Lou Bonnick, 1978	Elizabeth Polanco, 1984	Susan Brown, 1989
Hospitalist	Susan Kohl, 1994	Susan Brown, 1996	Laura Motones, 1997
Allergy, immunology	Jane Lee, 2001	—	—
Cardiology	Melissa Carry, 1989	Cara East, 1990	Shelley Hall, 1997
Dermatology	Roberta Simon, 1976	Marcia Glass, 1985	Laura Sears, 1988
Endocrinology	Cara East, 1987	Priscilla Hollander, 1996	Raphaelle Vallera, 1996
Gastroenterology	Katherine Little, 1986	Catherine Yaussy, 1996	Natalie Murray, 2000
Hematology, oncology	Consuelo Murray, 1981	Joanne Blum, 1992	Joyce O'Shaughnessy, 1997
Infectious disease	Cynthia Schneider, 1986	Cristie Columbus, 1993	—
Nephrology	Molly Bankhead, 1994	Kim Rice, 1998	—
Neurology	Lise Labiche, 2003	—	—
Pulmonology	Sharon Cassidy, 2000	Joyce Shotwell, 2000	—
Rheumatology	Dianne Petrone, 1987	Marian Sackler, 1998	—
Pathology	Janet Caldwell, 1919	Gwendolyn Crass, 1959	Marie Shaw, 1959
Pathology (modern)	Doris Vendrell, 1970	Alex Gillespie, 1993	Lesley Ann Kresie, 2000
Pediatrics	May Agnes Hopkins, 1920s	Doris Spiegel, 1940s	Ruth Allen, 1965
Pediatrics (modern)	Carol Gray, 1980	Marjorie Millici, 1993	Jenny Clifford, 1993
Neonatology	Dolores Carruth, 1971	Shirley Kindberg, 1979	Janet Kinney, 1997
Physical medicine	Yvonne Cordray, 1960	Evangeline Cayton, 1977	Susan Warden and Mary Carlile, 1994
Psychiatry	Dode Hanke, 1962	Anne Race, 1971	Joanna Clevenger, 1972
Obstetrics, gynecology	Ruby Maffett, 1930s	Marianna Hood, 1942	Mary Jennings and Lois Jordan, 1957
Obstetrics, gynecology (modern)	Indira Shah, 1972	Ava Brar, 1974	Sharon Bakos, 1986
Gynecologic oncology	Carolyn Matthews, 1991	—	—
Radiology	Katherine Hall, 1986	Meg Lofland, 1999	Sandra Heard, 2001
Interventional radiology	—	—	—
Mammography	Patricia Krakos, 1993	Michele Miles, 1998	—
Radiation oncology	Michela Caruso, 2000	—	—
Surgery	Laura Petrey, 2001	Stacy Stratmann, 2002	—
Breast surgery	Sally Knox, 1986	Valerie Andrews, 1996	—
Colorectal surgery	Julie Kwa-Leverton, 1998	—	—
Hand surgery	—	—	—
Neurosurgery	Irene Willingham, 1999	—	—
Ophthalmology	Ruby Daniel, 1960s	Elizabeth Vaughan, 1971	Mary Agnes Lancaster, 1972
Orthopaedics	Ruth Jackson, 1932	Margaret Watkins, 1941	—
Otolaryngology	Barbara Schultz, 1986	—	—
Plastic surgery	—	—	—
Thoracic surgery	—	—	—
Transplant surgery	—	—	—
Trauma surgery	Laura Petrey, 2001	—	—
Urology	—	—	—
Vascular surgery	—	—	—

*Includes attending staff who stayed at BUMC for at least 1 year.

Jackson retired in 1990 and died in 1994 at the age of 92, leaving an indelible mark on BUMC and orthopaedic surgery.

Women physicians also arrived early in the pathology laboratories, in great measure due to the support and mentoring of Dr. George Race. When Dr. George T. Caldwell became professor of pathology in 1919, he employed Dr. Janet Caldwell to assist him.

In 1923, Dr. Janet Caldwell became the director of pathology. Dr. Marie Shaw was hired in 1959 from Memorial Hospital in Lubbock. Another early female pathologist was Dr. Gwendolyn Crass, who was hired by Dr. George Race. Dr. Crass left her position as chief technologist in 1959 to attend medical school at the University of Texas Medical Branch at Galveston. She then

returned as a physician in 1959 and was placed in charge of the hematology laboratory. Her other accomplishments included serving as director of the school for medical technologists, a program that ended in 1996.

The first women physicians in each department, division, or specialty at BUMC are shown in Table 1.

WOMEN PHYSICIANS CURRENTLY PRACTICING AT BAYLOR

Sharing our stories is the beginning of wisdom and the first step in understanding our strength as women.

—ELIZABETH FORSYTHE HAILEY

BUMC currently has >200 women physicians (Figure 5). For this article, we interviewed a representative sample of 37 women physicians who were among the first in their specialty at BUMC. These physicians were asked about how they chose their career and if they had special mentors or others who inspired them along the way. BUMC women physicians shared memorable experiences and how they have dealt with difficult issues related to being a woman physician. Possibly more relevant to women physicians, interviewees shared how they balance work and home life. Lastly, these women spoke about how they came to BUMC and how the institution has changed in the years they have served here.

Childhood

These women physicians came to BUMC from all over the country, but approximately half came from Texas. Some grew up in small towns (9 of 37), while 4 were born in Dallas. Dr. Oneita Hedgecock was born in a home half a block from Fair Park. Dr. Anne Race was born in Dallas, while Drs. Irene Willingham and Sue Bornstein were even Baylor babies. Three physicians grew up in military families and lived in many different cities. Dr. Valerie Andrews' father served in the army, but she was able to spend a large number of years in Atlanta, Georgia. With her father in the US Air Force, Dr. Melissa Carry similarly moved frequently until her father, Colonel J. P. Moore, retired to Benton, Arkansas. Dr. Carolyn Matthews was able to spend more years in Virginia than elsewhere, as her father worked in the Pentagon. Two physicians were born abroad: Dr. Consuelo Murray in Mexico City and Dr. Evangeline Cayton in the Philippines. Dr. Cynthia Schneider's family fled to Mexico from Europe to escape antisemitism when the USA allowed no additional Jewish immigrants because of quotas.

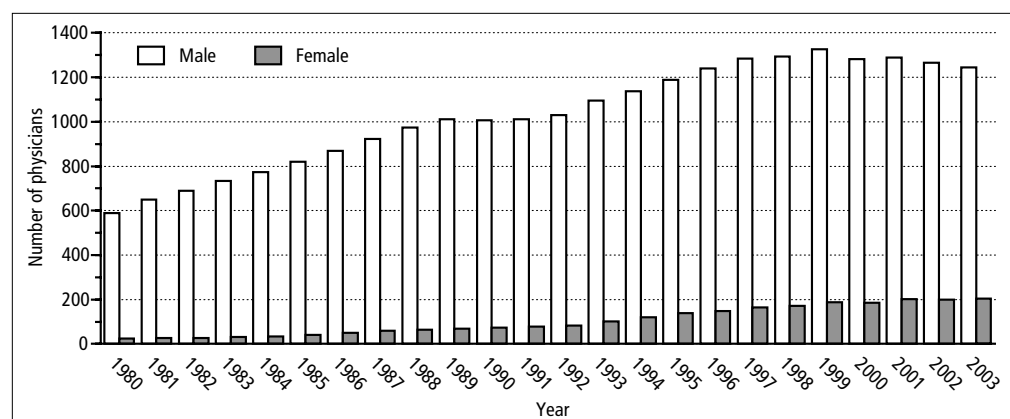


Figure 5. Numbers of women and men physicians at Baylor University Medical Center since 1980. Data from BUMC Medical Staff Services.



Figure 6. Dr. James D. Hardy and Dr. Katherine Little, spring 1981. Photograph courtesy of Dr. Katherine Little.

Physicians in the family

Most of the BUMC women physicians (20 of 37) have no other physicians in their families. In contrast, Dr. Cynthia Schneider comes from a family of physicians, including a paternal uncle, paternal cousin, maternal grandfather, and maternal great-uncle. Her father and a second paternal uncle were dentists. The great-great-great-great-great-great grandfather of Dr. Carolyn Matthews was a physician in the 1780s and a hero in the Battle of Bunker Hill. Dr. Katherine Little's father, Dr. James D. Hardy, was the chairman of surgery at the University of Mississippi for 30 years and the editor of the most-studied textbook of surgery (Figure 6). His twin brother, Dr. Little's uncle, was an obstetrician/gynecologist. Dr. David Bornstein, Dr. Sue Bornstein's father, was also well known and served Baylor first as an internist and then through work in the Baylor Senior Health Centers for 35 years. Dr. Catherine Yaussy's father was an internist in Bakersfield, California.

Some of the medical personnel in the families of BUMC women played a role in their entering medicine. Dr. Katherine Little and Dr. Sue Bornstein were inspired by their fathers to enter medicine.

Dr. Kim Rice has an older sister who practices internal medicine at Methodist Hospital and who encouraged Dr. Rice to come to Dallas. Dr. Priscilla Hollander fondly recalled an aunt, now 95 years old, who was one of the first nurse-anesthetists in the 1950s. Dr. Elizabeth Polanco loved medicine when she heard wonderful stories from her aunts Tommie and Josephine, both of whom were nurses and incredible storytellers. Dr. Consuelo Murray entered medicine after her step-father took her on house calls in

Cleburne, Texas. Dr. Evangeline Cayton's grandfather practiced medicine in the Philippines, where he made house calls and was often paid in eggs and chickens. Dr. Cayton said she almost expected to be paid in the same manner.

Dr. Joanne Blum had a maternal uncle who was a pediatrician, and her father was a science educator who inspired all of the children to love the scientific method. Thus, all 3 of his children became physicians: one son a radiologist, one son a nephrologist (MD, PhD), and Dr. Blum an oncologist (MD, PhD). Similarly, all 4 living children of Dr. Anne Race entered medicine: one in orthopaedics, one in physical medicine, one in psychiatry, and one in infectious disease. Dr. Doris Vendrell's 4 children also entered professional careers: one in radiology, one in pathology (Dr. Amelia Vendrell, who was a BUMC intern), one in dentistry, and one (a PhD) in laboratory science. Dr. Katherine Little was the youngest of 4 daughters of Dr. Hardy, and again all 4 entered professional careers: one in philosophy, one in psychiatry, one in psychology, and Dr. Little in gastroenterology. Both children of Dr. Shirley Kindberg chose medical careers: her daughter became a nurse, and her son became a pediatric trauma/general surgeon at Parkland Hospital.

In addition to ancestors and children, several women physicians chose spouses in the medical profession. Of the interview sample, fully one third (13 of 37) also married physicians: Drs. Andrews, Columbus, East, Gray, Hall, Kindberg, Kohl, Race, Schneider, Simon, Stratmann, Willingham, and Yaussy. This choice probably arose for several reasons. Women in medical training are more likely to meet men in medical training. In some cases, the demands of a medical career may be more easily tolerated by another physician, who faces similar demands and understands practice needs. Lastly, private medical practice does not usually entail extensive travel for work and, thus, there is less need to have the spouse readily available for home tasks.

Among 8 of the 13 physician couples, both spouses practice at BUMC. In some cases, the spouses share office space. Dr. Valerie Andrews practices breast surgery, and Dr. Tom Andrews practices cardiology. Dr. Cristie Columbus practices infectious disease, and Dr. Clayton Roberts practices anesthesiology. Dr. Cara East practices cardiology and clinical research, and Dr. Dan DeMarco practices gastroenterology. Dr. Carol Gray practices pediatrics and shares office space with her husband, Dr. James H. Gray, an ophthalmologist. Dr. Shirley Kindberg practices neonatology and shares office space with Dr. Dale Coln, who practices pediatric surgery. Dr. Anne Race initially set up her psychiatry practice at BUMC within the office of Dr. George Race, head of pathology. Dr. Cynthia Schneider may have developed a special interest in surgical infections in part because her husband, Dr. James Brodsky, practices orthopaedic surgery of the foot and ankle. Dr. Roberta Simon practices dermatology and dermatological surgery in the same office with her husband, Dr. Herb Leiman, a neurologist (affectionately called Leiman/Simon, Incorporated).

Reasons for choosing medicine as a career

The women physicians at BUMC had many reasons for entering medicine. To some extent, all liked science and helping others. Some entered medicine because illness played a role in their early lives. Others were drawn to the challenge of medical study. Some entered medicine due to the influence of important

role models, while others wanted to be part of the tradition of medicine.

Many BUMC women physicians entered medicine because of their intense love of science. Dr. Dianne Petrone loved biology and people and felt bench research would be too isolated. Dr. Joanne Blum had a "marvelous" summer internship in high school. Dr. Sharon Bakos typed graduate papers at M. D. Anderson Hospital and became interested enough to enter graduate school. While in graduate school, she attended medical school classes and then decided to go to medical school. Dr. Priscilla Hollander obtained a PhD in physiology from Yale University before she entered medical school. Dr. Patricia Krakos loved dissecting rats in high school and worked for 2 years as a medical technologist before applying for medical school, a decision discouraged by her husband and his family. Dr. Sharon Cassidy's initial plan was to be a public health nurse, and Dr. Susan Brown entered nursing first due to her love of pathophysiology. Dr. Cristie Columbus had an interest in biological sciences and people, while Dr. Doris Vendrell loved the intellectual aspect of science, receiving degrees in both bacteriology and chemistry before entering medical school. Dr. Elizabeth Vaughan was a math major when a school counselor gave her an aptitude test and told her medicine would be her best field. Dr. Roberta Simon also started out in math in New York City, and Dr. Sally Knox loved to learn.

Several entered medicine as their families struggled with medical illnesses. Dr. Oneita Hedgecock was 13 years old when her sister spent 11 months at BUMC in a body cast for severe scoliosis. She recalled watching Dr. D'Errico, a distinguished neurosurgeon, make daily rounds with an entourage. Dr. Irene Willingham's mother died at BUMC of a brain tumor while also under the care of Dr. D'Errico. Dr. Truett James repaired Dr. Willingham's elbow after she fell from a horse in her teens. Dr. Susan Kohl watched her mother undergo chemotherapy for Hodgkin's disease and understood firsthand the side effects of chemotherapy. She also saw how the bedside manner of different physicians affected both her mother and father. Dr. Joyce O'Shaughnessy likewise grew up enmeshed in the medical world when her baby sister developed acute lymphocytic leukemia at age 5. Dr. O'Shaughnessy was drawn to oncology because of this experience and worked summers in college in cancer research.

Dr. Cara East was also propelled into medicine by illness, although her interest evolved from being unable to adequately help with ill farm animals. Dr. Carolyn Matthews worked for an inspiring veterinarian for 6 years and, like Dr. East, entered medicine to work with healing in humans instead.

Some of the BUMC women physicians chose medicine for the challenge. Dr. Roberta Simon specifically chose dermatology because it was a very competitive field, while Dr. Doris Vendrell loved the problem-solving aspect of medicine. Dr. Elizabeth Polanco was drawn to the challenge of preventing disease and alleviating pain and suffering. Dr. Irene Willingham chose neurosurgery because it was technically and physically challenging, and she loved the long cases. Dr. Stacy Stratmann chose medicine because it was the most challenging area of science and then chose surgery because of the ability to see the problem and fix it. Dr. Sue Bornstein chose medicine because it was intellectually challenging, and Dr. Dianne Petrone chose rheumatology because so little was known about rheumatology and immunology.

Dr. Cynthia Schneider and Dr. Cara East wanted a life of constant study, evolution, and challenge.

Dr. Sharon Cassidy switched from wanting to be a public health nurse to being a physician when her father felt she could not achieve either goal. Similarly, Dr. Suzanne Yeagley overcame many obstacles, including a loss of funding for her fourth year of college. She looked through the medical books of her boyfriend and became interested in medicine. She was discouraged initially from entering medical school, and so she began studying for her nursing degree at New York University, where she took classes with medical students and decided to apply to medical school instead. Her family did not believe she could succeed in science, so she applied to medical school in secret while working as a flight attendant.

Most BUMC women physicians also reached to be physicians so they could “do good” in the world. Two women began their careers considering becoming medical missionaries: Dr. Shirley Kindberg and Dr. Joyce Shotwell. Dr. Anne Race entered medicine in World War II when women were looking for a way to contribute to society. Dr. Laura Petrey chose surgery after seeing a television special about a young girl with severe facial deformities who underwent plastic surgery that resulted in normal facial features. Dr. Sally Knox wanted to help families navigate the trauma of breast cancer and ease the anxiety in other women who were found not to have breast cancer (*Figure 7*).

Some BUMC women recounted stories of role models in science and medicine who encouraged them. Dr. Carol Gray told a lovely story of how her high school economics teacher encouraged her to enter medicine. While in the ninth grade, Jessie Mae told Carol she “could” be a pharmacist. In the 10th grade, Jessie Mae told her maybe she should consider being a physician. By the 12th grade, Jessie May told her she should definitely be a physician, and subsequently Jessie May attended all of Dr. Gray’s graduation ceremonies, including that for medical school.

Dr. Shelley Hall watched *Engine 51/Emergency* on television, which piqued her interest in medicine. Dr. Catalina Garcia was the firstborn in her family and became a caregiver for her younger siblings early in life. Dr. Melissa Carry recalled a physician mentor who encouraged her with her science fair project such that she won first place.

Several physicians were drawn into the tradition of medicine. Dr. Evangeline Cayton’s parents encouraged her because of the respect associated with the profession. Drs. Bornstein, Little, Rice, Yaussy, and Schneider all experienced the practice of medicine through their family and greatly valued the healing tradition.

Inspiration

BUMC women physicians drew their inspiration from many sources. Many women credited their families for ideological support. Drs. Carolyn Matthews, Joanne Blum, Valerie Andrews, Joyce O’Shaughnessy, and Melissa Carry all credited their fa-

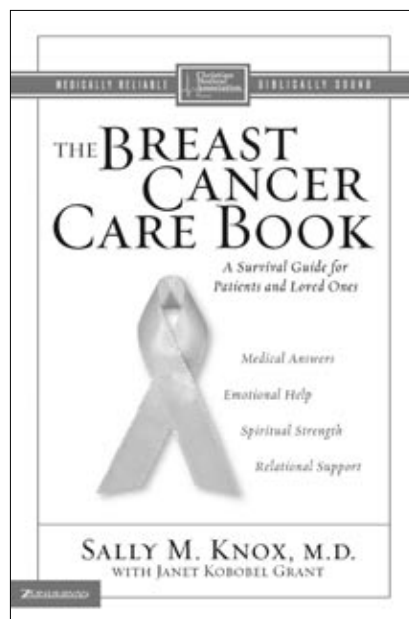


Figure 7. The book published in May 2003 by BUMC physician Dr. Sally Knox on breast cancer care.

thers with encouraging and inspiring them, including the 3 fathers who were in the military. Dr. Catherine Yaussy recalled her internist father taking her on a trip to Africa, where he diagnosed malaria in children with enlarged spleens. Dr. Sue Bornstein found that her father was “larger than life,” as we knew him to be at Baylor, but always approachable. Dr. Cynthia Schneider heard a story presented on rounds with Dr. Richard Leachman, a prominent cardiologist in Houston, about a general practitioner in Laredo, Dr. Max Rottenstein, who sent a patient to Houston 3 times, insistent that the patient have surgery for endocarditis. When Dr. Leachman finally capitulated and completed the surgery, the patient was found to have Q-fever endocarditis. Dr. Schneider proudly informed Dr. Leachman that Dr. Rottenstein was her uncle.

Mothers of BUMC women physicians also inspired their daughters. Dr. Dianne Petrone’s mother stressed the importance of education, and Dr. Roberta Simon’s mother told her she could accomplish anything. Dr. Laura Petrey was highly inspired by her mother, who kept the family together when her father developed multiple sclerosis and even returned to school to become a teacher. Dr. Susan Kohl was very inspired by her mother’s eventually futile struggle with Hodgkin’s disease. She recalled that her mother prepared her for her death, even though Dr. Kohl was only 11 years old, and spent time instructing her on important life choices.

Dr. Doris Vendrell and Dr. Stacy Stratmann were inspired by both parents and encouraged to be whatever they wanted to be. Dr. Carol Gray was encouraged to enter medicine by her parents, her sister, and her brother. Dr. Shirley Kindberg was highly motivated to enter medicine when her brother felt he could not take the time to train in medicine.

In addition to being inspired by family members, BUMC women physicians were inspired by other physicians. Dr. Catalina Garcia was encouraged by Dr. Frederick P. Bornstein, the county coroner in El Paso. She worked for him in the summers, and he eventually loaned her money for college. Dr. Consuelo Murray was inspired by Dr. William Bean in Galveston (a medical historian); Dr. Sue Bornstein, by a cardiologist in medical school, Dr. Dorothy Ekery; and Dr. Anne Race, by Dr. Jake Peden in anatomy at the University of Texas Southwestern Medical School (UT Southwestern). Dr. Sally Knox was inspired by many great surgeons and noted a special debt to Dr. Harold Cheek, who directed her into breast surgery. Dr. Kim Rice was very inspired by a woman nephrologist at the University of Tennessee who so ably summarized each patient’s problems in the progress notes that all looked for her notes first in the chart. Dr. Irene Willingham was both inspired and encouraged to return to medical school by the nephrologists for whom she worked as a dietitian. Dr. Priscilla Hollander gave great credit to Dr. Etsweiler, her program director in Minnesota, as well as Dr. Condiff.

In turn, some of our BUMC physicians have served as inspiration for BUMC women physicians. Dr. Susan Brown was inspired by Dr. Katherine Little (and by Dr. Lynne Kirk at UT Southwestern); Dr. Cristie Columbus, by Dr. John Fordtran; and Dr. Sharon Bakos and Dr. Shirley Kindberg, by Dr. Dolores Carruth. Dr. Dolores Carruth was recognized as a physician who could get things done and who was honest with patients.

A few women drew inspiration from beyond their families and physicians. Dr. Carolyn Matthews was inspired by the veterinarian with whom she had worked for 6 years. Dr. Oneita Hedgecock was encouraged by prominent women associated with the Masons. Dr. Sharon Cassidy became the president of the Indiana Junior Heart Association while in high school, an organization that launched her interest in cardiac and pulmonary physiology. Three BUMC women credited high school teachers for inspiring them: Dr. Patricia Krakos, Dr. Shelley Hall, and Dr. Cara East. Dr. Cara East was also inspired by Marie Curie, who won one Nobel Prize with her husband, won one Nobel Prize by herself after his death, and then watched as one of her daughters won a Nobel Prize 30 years later. Dr. Joyce Shotwell was inspired by Baptist missionaries and by Dr. Rebecca Naylor, a woman who practiced surgery in India. Dr. Elizabeth Vaughan was inspired by evangelist Kathryn Kuhlman.

Mentors

While BUMC women physicians drew their inspiration from varied sources, once they entered medicine, many benefited from valuable advice provided by mentors. Dr. Oneita Hedgecock found an outstanding mentor in Dr. Harold Boehning at BUMC, who guided her not only in the practice of anesthesiology but also in the art of medical politics. Dr. Sharon Bakos was guided by Drs. Kemp Strother and Bob Gunby, while Dr. Evangeline Cayton learned from Drs. Ed Krusen and Jim Caldwell. Dr. Cristie Columbus credited Dr. William Sutker, who helped her identify a position that allows her to balance motherhood with being a physician and still be a “perfectionist” at both. Dr. Katherine Little felt her career was helped immensely by Dr. John Fordtran and Dr. Gunther Krejs. Dr. Dianne Petrone was mentored by a rheumatologist, as was Dr. Sue Bornstein, and Dr. Joanne Blum was mentored by Dr. Max Wicha, director of the cancer center at the University of Michigan. Dr. Shelley Hall greatly valued her association with Dr. Clyde Yancey, whom she found to be an outstanding cardiologist.

Dr. Irene Willingham expressed great thanks to Dr. Glenn Kindt, chairman of neurosurgery at the University of Colorado, who admitted Dr. Willingham as the first woman to his program. Dr. Valerie Andrews was encouraged by Dr. Jacobs, a surgeon at St. Thomas Hospital; Dr. Laura Petrey, by several outstanding surgeons at Cook County Hospital; Dr. Patricia Krakos, by Dr. Helen Redman (interventional radiologist at Parkland); Dr. Sally Knox, by Dr. Harold Cheek and Dr. Zeck Lieberman; and Dr. Doris Vendrell, by Dr. Bill Kingsley and Dr. K. Earle. Dr. Cynthia Schneider especially noted her mentoring by Dr. Philip Lerner, who taught her to be thorough in the investigation of endocarditis.

Some valuable mentoring also came from physicians in a different field. Thus, Dr. Consuelo Murray credited Dr. James Bergin, chief of medicine at Bethany Hospital in Kansas City. Dr.

Shirley Kindberg received valuable insight and support from Dr. Dale Coln, and Dr. Susan Kohl gained much from her high school teacher Ms. Helen Martin. Dr. Stacy Stratmann was encouraged by Dr. Raymond Folse, chief of her medical school, while Dr. Anne Race was encouraged by Dr. Robert W. Lackey in physiology. Dr. Roberta Simon drew inspiration from a woman cardiologist at New York University, Dr. Bertha Rader, who is renowned and could do it all. Dr. Cara East was mentored by Drs. Michael Brown, Joseph Goldstein, and Scott Grundy at UT Southwestern and later by Drs. Walter Berman and Charles Gottlich at BUMC. Dr. Melissa Carry was mentored by a nephrologist, Dr. Earnest Halper, and, like several generations of Parkland-trained cardiologists, by Dr. J. T. Willerson.

Dr. Carol Gray had multiple mentors, including Drs. Dolores Carruth, Bob Gunby, Richard Joseph, and Carolyn Matthews. Dr. Catherine Yaussy also noted support from BUMC doctors, including Dr. Katherine Little. Dr. Susan Brown emphasized how Dr. Marvin Stone served as a role model in medical ethics.

Thus, BUMC women physicians, like all physicians, benefited greatly from the physician role models available at Baylor. The Baylor work ethic and integrity were cited by multiple women physicians. The women interviewed for this article were among the first in their respective fields at BUMC and thus generally were not able to benefit from mentoring by other women. It is expected that BUMC women physicians of the future will have both male and female role models available to help address some of the issues experienced more by women physicians.

Memorable experiences

Once in medicine, most women easily recounted experiences that have made their careers worthwhile. In fact, most women physicians described their memorable patient experiences as too numerous to count.

Making a critical diagnosis stood out in the minds of some of the women physicians. Dr. Susan Kohl recalled diagnosing a type 1 aortic dissection in the BUMC emergency room during her first years of work for Texas Primary Care, while Dr. Irene Willingham quickly diagnosed a ruptured tubal pregnancy in a patient who presented with shoulder pain in the Ben Taub emergency room. Dr. Catherine Yaussy was gratified when she encouraged a 22-year-old with gastrointestinal bleeding to have a colonoscopy, which revealed colon cancer, and Dr. Patricia Krakos was proud when she carefully reviewed the mammogram of a patient who had had the study performed elsewhere and was sent to Baylor for aspiration of a cyst. The noninvolved breast clearly had a small breast cancer.

Other memorable experiences revolved around intelligent and persistent medical management. With honed medical skills, Dr. Shirley Kindberg was able to discharge a newborn from the hospital who initially had an Apgar score of 1. Dr. Cara East stayed up all night shocking a patient with recurrent ventricular tachycardia, before there were hands-off paddles; that patient returned years later to express thanks. Dr. Joyce Shotwell eventually discharged a 19-year-old woman from the hospital who arrived at BUMC after a prolonged illness still on a ventilator with a fraction of inspired oxygen of 80% and a peak end-expiratory pressure of 17. Dr. Joanne Blum was able to prevent brain herniation in a patient with brain metastases, and Dr. Roberta Simon

was able to eventually discharge a patient after months of hospital care for dermatomyositis. Dr. Laura Petrey recalled her first traumatic Whipple procedure on a patient who also survived. Dr. Shelley Hall remembered well her first heart transplant and a patient who had a ventricular tachycardia arrest after a massive myocardial infarction but who then stabilized after placement of the left ventricular assist device.

Memorable experiences with patients can also revolve around less dramatic issues. Dr. O'Shaughnessy recalled a young mother with a history of breast cancer who arrived very anxious because of radicular pain and who was so relieved when the problem was found not to be recurrent cancer. Dr. Consuelo Murray taught a Latin-American patient about the Aztec diet of fish and vegetables and watched him gain optimal control of his diabetes. Similarly, Dr. Suzanne Yeagley was pleased when patients made life-enriching and permanent lifestyle changes, and Dr. Sharon Bakos recalled a patient with triplets who refused to let her cesarean section begin until she, then a resident, arrived.

For a number of the BUMC women physicians, their most memorable experience involved leadership roles. Dr. Elizabeth Polanco was very proud of being the first woman physician on the Baylor medical advisory committee, while Dr. Doris Vendrell loved the extensive teaching opportunities available at BUMC. Dr. Catalina Garcia recalled walking through the SurgiCenter and being approached by a young woman, who told her she saved her life by giving a lecture at her middle school. The young woman had been planning to run away from home with a man but instead chose to stay in school after hearing the lecture.

Many women volunteered their time to help others in other ways as well. Several women volunteer at churches and in non-profit medical clinics. Several travel on mission trips to use their medical skills. Dr. Elizabeth Vaughan has traveled to China each year for several years and told stories of using ultrasound to fracture eye lesions that would require removal and replacement with an implant in the USA, an option not available for the poor in China. When vision is restored, some patients are finally able to get jobs. This work has also had a spiritual side for her and resulted in her writing her book, *An Instrument in God's Hands: An Eye Surgeon's Discovery of the Miraculous* (Figure 8). She also helped establish a multispecialty surgery center in China to benefit many patients.

Dr. Cara East has written about her experience as a breast cancer patient. Her article, "Strategies for cancer survivorship: practical advice from a doctor and patient," outlined both practical and humorous guidelines for dealing with this diagnosis. She emphasized the importance of choosing "a physician you trust" and realizing that "doctors are not God." She also commented, "Why women can lose all their head hair and still have to shave their legs remains a mystery." Since her own battle with a serious

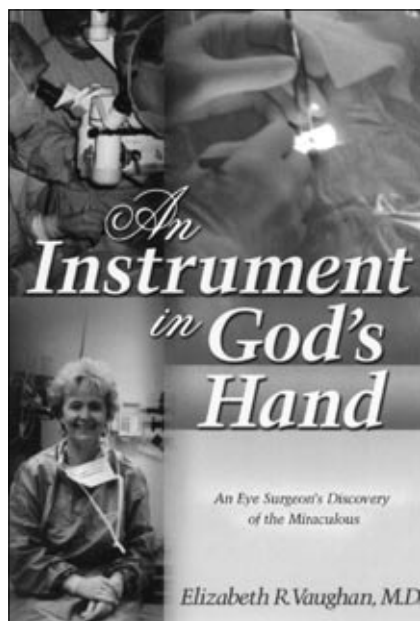


Figure 8. The book published by BUMC physician Dr. Elizabeth Vaughan on her experience as a medical missionary.

illness, she is able to encourage her patients more emphatically. When patients tell her they can't do it, she can confidently come back with "yes, you can!" Perhaps her best advice is "we are all going to die. The gift lies in not dying until we die."

Lastly, some physicians found research most memorable. Dr. Priscilla Hollander recalled the intense effort required by the Diabetes Control and Complications Trial followed by the gratification from proving the benefit of tight control of blood sugars in the management of diabetes. Dr. Cara East also fondly recalled the trials of the statin drugs, which were tested at BUMC. Since their release, these drugs have had a dramatic effect on the practice of cardiology worldwide.

Difficult issues

The healing of people, our relationships, institutions, and indeed, our world, depends entirely on loving partnership between men and women, and on honoring the traditional values associated with both sexes.

—JANNE ACHTERBERG, WOMAN AS HEALER

Some issues seem to affect female physicians more than male physicians. This is especially true with the interaction between male and female physicians, which often carries more difficulty than that between male physicians. Women physicians often feel that they must prove themselves even more knowledgeable and more dedicated to be accepted as equals. Thus, as this is the first generation of women to enter the workplace en masse, women have had "to be men first." Ideas presented by women physicians are often discounted and perceived as less valuable. Women physicians express difficulty in getting other physicians to take them seriously, and they often find communication with male colleagues not as effective as desired. There is a strong sense that women are not beginning their careers at the same starting line. Male colleagues sometimes "talk over" their female colleagues or are seen as intellectual bullies. Women physicians especially have difficulties with politics, as they are not included in male discussions and do not have the same avenues of bonding available to them.

In contrast, women physicians generally find they have unique talents and qualities that can be very useful in medicine, and some male colleagues go out of their way to nurture, guide, and direct their female colleagues. Advancement sometimes is easier because women physicians are more easily remembered by the attending physicians.

Women physicians also have different relationships with their nursing colleagues. A woman physician might be openly resented by some nurses for firm words and actions that are acceptable behavior for male physicians. There is less recognition of boundaries for female physicians. This can allow for better communication between female physicians and nursing staff, although rounding can take considerably longer for the Baylor women physicians.

Interactions with patients have probably changed the most in recent decades. Older women physicians tell repeated stories of patients who didn't accept them. Sometimes, patients have been deliberately transferred to the care of male physicians. One young female physician recalled her patient complaining to hospital administrators that he had not been seen by a doctor in 3 days. Of course, she had diligently visited him daily. Patient interactions have changed dramatically, and sometimes now patients specifically request female physicians.

There are practical issues as well for women physicians. Many older physicians recalled having to sleep on x-ray tables or in delivery rooms when there were no call rooms for women. One female physician found her most difficult problem to be finding comfortable but attractive shoes. And for many physicians, finding an attractive watch that also has a second hand to check pulses has proved challenging.

Balancing work and home life

Despite the issues noted above, more women physicians found that their greatest challenge lies in balancing work and home life. When asked how they did this, answers included, "With great difficulty," "I don't," and "Not very well." One physician noted that there are "no tricks," while another said that "sleep is overrated."

As a rule, not the exception, Baylor women physicians at BUMC made choices necessary to have a career. These included mobilizing help from others, working a decreased weekly schedule, being very organized, and working hard to set appropriate boundaries.

Of the women physicians interviewed, 5 of 37 decided not to have children. Several felt this would give them the leeway to volunteer instead. Of the majority that have had children, almost all have had significant support and help from others. Eight of 37 had significant help from nannies, babysitters, and/or housekeepers. Most felt that their husbands were very supportive and understanding, and several have husbands who are either at home or who have very flexible work schedules, again a conscious choice. Others received help and support from parents or in-laws, and several noted that they have self-reliant children. A few had the option to take their children with them to the office due to a flexible office situation as well.

Other women physicians chose to balance work and home life by curtailing their careers. Eight of 37 chose part-time schedules, with most working a 3- or 4-day workweek. One woman physician works nights only to be available for children's activities in the day.

BUMC women physicians also have developed other coping strategies. Several noted that they had to learn to set boundaries and to say no. Many have learned to accept that "nothing is ever done to one's complete satisfaction." At least two chose to work extra hours to fulfill career and home needs.

Many women physicians accepted that they take some home chores to work and some work chores home. Others have learned to accept that plans may change. Most women physicians are very organized and able to accomplish both work and home needs in the least time. Several made a point of being sure that time off is off. Lastly, women physicians generally said they do best when they do not try to do it all.

Coming to Baylor

Many women physicians (11 of 37) came to BUMC as medical students, residents, or fellows and loved Baylor so much they stayed to develop their practice here. Others were actively recruited by BUMC or BUMC physicians (8 of 37), while some were able to join the BUMC staff when physician job openings became available (5 of 37). A fair number came to join their spouses (7 of 37). Thus, BUMC itself has been responsible for bringing many of its women physicians to practice here.

Leadership roles

Perhaps in part because the women physicians interviewed were the first in their respective fields, many have had leadership roles in various medical organizations and societies. Dr. Anne Race served as the president of the North Texas Psychiatry Society and the Women's Psychiatry Society. Dr. Susan Brown was the president of the Houston chapter of the Texas Internist Club. Dr. Carolyn Matthews served as the cochair for the Felix Rutledge Society from M. D. Anderson Hospital. Dr. Sharon Bakos served as the president of the Dallas-Fort Worth Obstetrics-Gynecology Society.

Several physicians have served on national committees of national medical organizations. Dr. Priscilla Hollander served on several committees of the American Diabetes Association, Dr. Joanne Blum on the executive committee of the American Society of Clinical Oncology, Dr. Cristie Columbus on the Texas Medical Association's Committee on Infectious Disease, and Dr. Shirley Kindberg on the Committees for Accident Prevention and The Fetus and Newborn for the American Association of Pediatrics.

A few BUMC physicians have served on national research committees as well. Dr. Joyce O'Shaughnessy worked at the National Cancer Institute for 10 years before joining the BUMC staff, served on the Baylor Committee for Research Strategic Planning, and still serves on the US Oncology Research Cooperative Committee. Dr. Cara East served under Dr. Eugene Braunwald on the executive committee for the Cholesterol and Recurrent Events national study. Dr. Catalina Garcia is currently serving in an advisory role for the National Institutes of Health. Along these lines, Dr. Cristie Columbus, associate director of medical education at BUMC, works with residency regulatory leaders to ensure Baylor's compliance with residency program standards.

Dr. Catalina Garcia also served on the Texas State Board of Medical Examiners from 1991 to 1997, for which she was appointed by then-Texas governor Ann Richards. Several BUMC women physicians have also lent their expertise to this board, which is responsible for the quality of Texas practitioners.

Women have been involved in committees that have lent assistance and support to physicians. Dr. Catalina Garcia participates in the National Hispanic Medical Association, while Dr. Carol Gray works with the C. V. Roman African-American National Medical Society. Dr. Katherine Little and Dr. Sally Knox help with the Christian Medical/Dental Association. Several women participated in the Isis Society at BUMC, a group of women physicians brought together by Dr. Sandra Steinbach and Dr. Margaret Christiansen for monthly gatherings. Currently, Dr. Sue Bornstein chairs the Baylor Women Physicians' Forum,

which meets quarterly at Baylor with a formal presentation by varied speakers.

Leadership roles at Baylor have been far fewer. No women have led any departments or divisions at Baylor since 1923, although one was selected by her peers to lead her department, an appointment rejected by the hospital administration. Nevertheless, women have been represented on the medical board by being elected to the at-large positions. Dr. Doris Vendrell was the first female secretary of the medical staff in 1974–1975, Dr. Cara East was the first female at-large member of the medical board in 1992, Dr. Elizabeth Polanco was the first female member of the medical advisory committee from 1996 to 1998, and Dr. Sue Bornstein will become the first woman president of the medical staff in 2005. In this position, Dr. Bornstein recognizes that the practice of medicine is evolving and priorities are changing. She anticipates the challenge of keeping the medical staff office relevant and responsive and hopes to be a consensus builder. As the number of women physicians continues to grow, it is expected that even more Baylor women physicians will attain positions of leadership in the future.

How Baylor has changed

Women physicians noted changes at BUMC during the years they have practiced here. Over half of the interview sample noted the addition of more women to the staff so that women physicians feel less isolated. Most noted less prejudice and more support. One young male physician who has trained in several medical systems and who has both a sister and a mother who are physicians noted that the backlash against female physicians appears to subside once the percentage of female physicians in a division or department reaches 30%. Almost all of the BUMC women physicians commented on Baylor’s commitment to quality goals, so that all departments

work for the common good. Thus, while BUMC’s physical plant has expanded greatly, the basic philosophy has remained unchanged. Even the quality of medical students and housestaff is noted to be high, as is the teaching.

Other substantive changes in the practice of medicine have affected BUMC. These include the integration of computers in everyday practice, the hospitalist movement, the increase in outpatient care, the development of standardized order sets and protocols, and the use of technology to improve patient care.

A few negative trends in medicine were noted as well. Most women physicians noted the increase in medical litigation, which is not always seen as improving patient care. There has been a significant decrease in reimbursement and in the time allotted to see each patient. Finally, a couple of women physicians, tongue-in-cheek, lamented the loss of the old “doctors lounge,” which never had a women’s bathroom.

THE NEXT GENERATION

Higher education for women produces monstrous brains and puny bodies, abnormally active cerebration and abnormally weak digestion, flowing thought and constipated bowels.

—DR. E. H. CLARKE FROM HIS BOOK
SEX IN EDUCATION; OR, A FAIR CHANCE FOR THE GIRLS

Today, women make up close to 50% of physicians in training. From 2001 to 2004, 87 women completed their housestaff training at BUMC (Table 2). The residents’ backgrounds are diverse. At BUMC, some of the female residents never considered any other career, while others had other careers before medical school. Dr. Anna Burke worked as a dietitian and Dr. Terry Gerber as an analyst-programmer in the cardiac catheterization laboratory at BUMC. Dr. Gerber then joined the cardiology research staff before pursuing medical school. Dr. Angela Carollo spent several years working in a deaf community and learning sign language. She considered pursuing this further but ultimately chose medicine as her career. The inspiration to pursue medical school came from family members who are medical professionals or influential teachers. For example, Dr. Aarthi Sankaran remembered her father, a cardiothoracic surgeon, talking about his patients when she was a child. She could never picture herself doing anything else. Dr. Lori Probst, mother of 4-year-old twins, was inspired by her great-grandmother, who balanced a nursing career with being a single mother, while Dr. Bridget Holden recalled a physiology professor who challenged her in class and encouraged her to attend medical school.

In medical school and residency, mentorship continues to be an important part of the tradition of medicine. Dr. Anna Burke remembered Dr. Jack Alperin, a hematologist and important mentor while she was in medical school at the University of Texas Medical Branch at Galveston. He emphasized the importance of understanding physiology and not just blindly treating illness. Ultimately, he influenced her decision to choose internal medicine as a career.

Table 2. Women completing residencies at Baylor, 1923–2004

Year completed	Internal medicine	Radiology	Surgery	Pathology	Obstetrics/gynecology	General internship	Physical medicine and rehabilitation	Radiology subspecialty	Surgery subspecialty	Medicine subspecialty	Total
1923–1928	0	0	0	0	0	5	0	0	0	0	5
1931–1940	0	0	0	0	0	2	0	0	0	0	2
1941–1950	0	0	0	2	0	7	0	0	1	0	10
1951–1960	1	0	1	1	1	10	3	0	0	0	17
1961–1970	1	4	1	5	1	14	1	0	1	3	31
1971–1975	1	1	1	8	1	4	4	0	0	2	22
1976–1980	3	0	2	10	0	5	4	0	1	1	26
1981–1985	5	4	1	7	2	6	1	0	3	2	31
1986–1990	14	4	2	3	3	15	2	2	4	3	52
1991–1995	20	8	7	9	9	18	4	6	5	7	93
1996–2000	13	12	6	8	10	17	7	6	8	4	91
2001–2004	17	9	5	7	17	10	5	7	5	5	87

Dr. Bridget Holden tries to model herself after Dr. John Preskitt, whom she considers “a great teacher and a smart and compassionate surgeon who enjoys what he does.” Dr. Han Pham looks to her uncle, a hospitalist, who understands the challenges because “he was in my shoes once.”

Most of these women admitted that it is difficult balancing the demands of residency with the demands of home life. Spouses are doctors, lawyers, and teachers with demanding careers of their own. Making time for a husband, children, and extracurricular activities is achieved through prioritizing and often getting little sleep. Dr. Anna Burke still reminds herself of some helpful advice she received as a fourth-year medical student from Dr. Cara East, “You can’t be everything; realize that from the beginning.” Though the balance is often difficult, many of these women, including Drs. Han Pham and Bridget Holden, intend to further challenge themselves by pursuing subspecialties. Interests outside of medicine include Dr. Terry Gerber’s interest in racing motorcycles and Dr. Lori Probst’s interest in making stained glass. Other popular pastimes include reading, traveling, and physical fitness.

Despite the challenges, being a woman physician is often seen as an advantage. Some women currently in training feel that, compared with their male counterparts, it is easier for them to communicate with patients about difficult subjects and to meet their patients’ emotional needs. Also, after training, women physicians find themselves in high demand in many male-dominated fields.

The future holds different opportunities. Dr. Nahille Natour plans to seek a private practice obstetrics/gynecology opportunity. Dr. Anna Burke, a new mother, plans to balance motherhood with a part-time internal medicine practice. She also has an interest in teaching residents. Dr. Diana Benavides hopes to pursue pathology fellowship training and do research in the emerging field of proteomics, a subspecialty of molecular genetics. Thanks to the pioneering spirit and persistence of women physicians in the 1800s, women are now able to enjoy successful careers in medicine.

THE FUTURE

Are not philosophers, mathematicians, and astrologers often inferior to country women in their divinations and predictions, and does not the old nurse very often beat the doctor?

—PARACELSUS,

FATHER OF MODERN CHEMISTRY

Women physicians have had to endure a learning process, which might have been harder due to the lack of other female physician role models and active networks and support systems for women physicians. Women physicians also carry the additional burden of actively practicing medicine and nurturing their families.

For women physicians at BUMC, by and large, the travails have been worthwhile. Most women physicians love their careers and greatly appreciate the opportunity to practice at a world-class medical and research institution like BUMC.

At this time, nearly half of the graduates of US medical schools are women (Figure 9), and women are represented in many different specialties (Figure 10). This next century of BUMC’s history thus promises to bring even more excitement and challenges for women physicians. The story, when told again

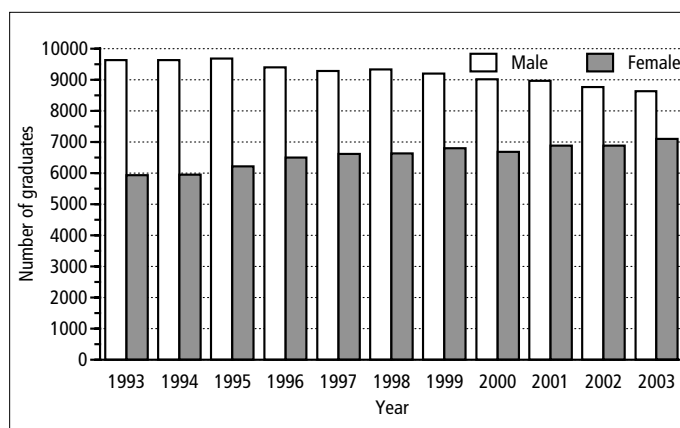


Figure 9. The number of men and women graduates of US medical schools, 1993–2003. Data from Barzansky B, Etzel SI. Educational programs in US medical schools, 2002–2003. *JAMA* 2003;290:1190–1196.

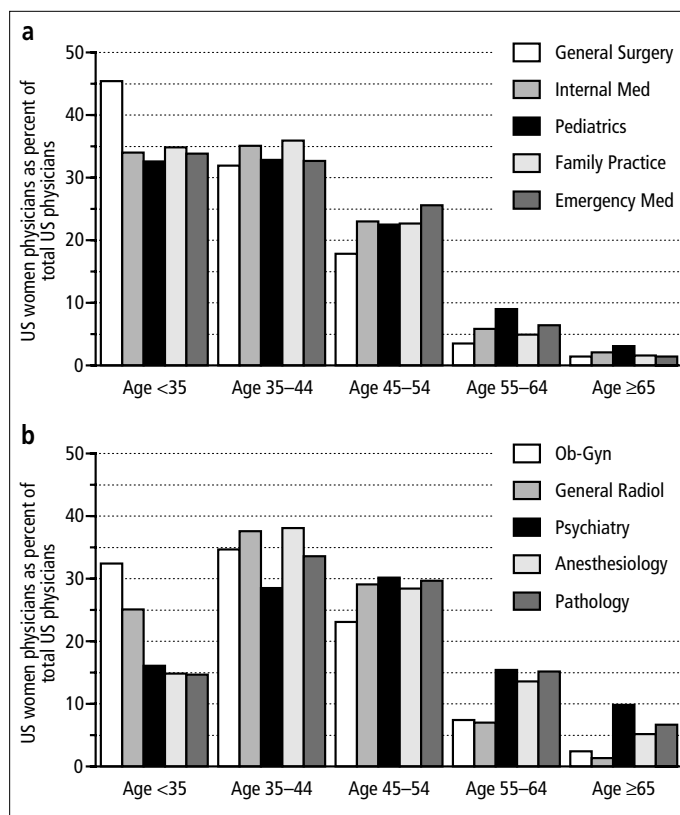


Figure 10. US women physicians by age and specialty in 2001. (a) Specialties with the largest representation of women. (b) Specialties with less representation of women. Data from American Medical Association, *Physician Characteristics and Distribution in the US, 2003–2004 Edition*.

at the end of the next 100 years, is likely to be as different as current medicine is from that of the Middle Ages. Time will tell.

Acknowledgments

I want to extend warm thanks to my husband and son, Dan and Michael DeMarco, who gave me support, encouragement, and, most valued of all, time for this endeavor. It is only with their help that we were able to complete this project in 4 months.

Many others also generously gave of their time and suggestions, including Dr. Michael Emmett, Dr. Jay Beck, Dr. Percy Luecke, Dr. Mark Armstrong, Dr. Barry Uhr, Ann Drew in internal

medicine, Gwen Duffie and Irene Martinez of the medical staff office, and Betty Prescott and Donna McCullin in the medical education office.

Most of all, we thank the women physicians of BUMC who are hardworking, courageous, and caring physicians who, despite demanding work and home schedules, found time to share a window into their lives.

-
- Achterberg J. *Woman as Healer: A Panoramic Survey of the Healing Activities of Women from Prehistoric Times to the Present*. Boston: Shambhala Publications, 1990.
- Brooke E. *Medicine Women: A Pictorial History of Women Healers*. Wheaton, IL: Godsfield Press, 1997.
- Campbell Hurd-Mead K. *A History of Women in Medicine: From the Earliest Times to the Beginning of the Nineteenth Century*. Haddam, CT: The Haddam Press, 1938.
- East C. Strategies for cancer survivorship: practical advice from a doctor and patient. *BUMC Proceedings* 2000,13:14–18.
- Pioneer women in Dallas medicine. *DMJ* 1998(September):349.